The Bradbury Science Museum - Scavenger Hunt Key

Group Names- _____

Try to find all of these things somewhere in the museum.

☐ **Satellite:** What does a satellite do?
Location: Hanging from the ceiling in the Defense Gallery. Some students may look for a satellite dish.
Possible answer: A satellite orbits Earth and sends signals to satellite dishes. This one was used to verify nuclear test ban treaties. Los Alamos scientists accidentally discovered cosmic gamma ray bursts with Vela satellites.

☐ **Soma Cube:** How many small cubes make up a Soma Cube?
Location: Puzzle tables
Answer: A 3 X 3 X 3 cube will have 3^3 or 27 small cubes in it.

☐ **Parachute**: What did it carry?
Location: On the ceiling in the Defense Gallery.
Possible answer: It carried the Blast-Gauge Canister that measured the pressure of airwaves from the Japanese nuclear explosions. It used microphone-based detectors and radioed the information back to a plane as the explosion destroyed the canister.

☐ **Nanotechnology:** How many nanometers long is your hand?
Location: Research Gallery
A nanometer is one billionth of a meter, a millionth if a millimeter. Light travels about a foot in one nanosecond. Nanoscale science is tiny!

☐ **Identification Photos:** These are a few of the badge photos from the time of the Manhattan Project. Does anyone share your last name?
Location: History Gallery near the video monitors
Many different people, with different kinds of jobs, have worked in Los Alamos from the time of the Manhattan Project to today! Some of these people came up from the Espanola Valley.

☐ **Algae:** What are they doing with algae at the Laboratory?
Location: Research Gallery
Possible answer: Los Alamos is working on developing transportation fuels from algae that could be nearly carbon-neutral.

☐ **Slide rule**: Why is it beside the computer?
Location: In a case within the Computing exhibit by the Theater in the Defense Gallery.
Possible Answer: It was used to perform difficult math calculations before calculators or computers, it was the pocket calculator's predecessor. Every engineer of the time carried one.

☐ **Trinitite:** What is Trinitite?
Location: History Gallery, along the west wall near the back door.
Possible answer: Trinitite is a rock formed at White Sands during the Trinity Test. Another piece is featured in the Radiation exhibit.

☐ **Bomb suit:** How much does the suit weigh?
Location: Defense Gallery
Answer: The weights listed add up to 70 pounds. This is well over half the weight of Jennifer, the woman in the video who puts one on.

☐ **The Gadget:** Why did they build the Gadget?
Location: There is a model in a glass case in the middle of the History Gallery. There is also a photo on the back wall with Norris Bradbury.
Possible Answer: It was used to test the implosion style bomb. Our model is much smaller than the actual device. The fire set under the photo is the only remaining major electrical component of a Fat Man type bomb.

☐ **Fat Man** (This is NOT a person!)
Location: The large yellow bomb model in the Defense Gallery.
This is a replica of the bomb that was dropped over Nagasaki. It weighed about 10,000 pounds (5 tons) and exploded with the energy of 21,000 tons of TNT.

☐ **Geiger counter**: What does it measure?
Location: On the radiation exhibit in the Research Gallery.
Answer: Radiation, students should test items at this display. They may discover, for example that the Fiestaware plate is much more radioactive than the piece of trinitite from the Trinity Test site.

☐ **Landform map:** What landform is located just west of Los Alamos?
Location: Near the Guide Desk
Answer: Los Alamos is located on the eastern shoulder of an immense volcanic caldera that erupted and collapsed most recently about a million years ago. Ash from this volcano has been found as far east as Kansas.

☐ **Archaeology:** What local artifacts have been found?
Location: Research Gallery, behind DemoStage, look in the drawers.
Possible answers: Students might find Native American pots and pot shards, tools, a 19th century pistol, a homesteader's pitcher and tin cans, etc.

☐ **Human battery:** Who in your group is the best conductor?
Location: Research Gallery at DemoStage
The copper and aluminum plates have different electrical properties, when you complete the circuit your body acts as the electrolyte in a battery. The meter measures the current you produce in micro-amps, a millionth of the current produced by a D cell battery.

☐ **ChemCam:** Where is ChemCam actually located?
Location: TechLab in a Plexiglas box.
Answer: ChemCam is one of the instruments on the Mars Science Laboratory rover, Curiosity, which is exploring Gale Crater on Mars. Los Alamos scientists use the laser in ChemCam to identify the elements in rocks on Mars.

☐ **What did you find interesting?** _____